



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/655,810

09/04/2003

David GenLong Chow

5038-318

7112

7590

10/15/2004

Julie L. Reed

MARGER JOHNSON & McCOLLOM, P.C.

1030 S. W. Morrison Street

Portland, OR 97205

EXAMINER

PHAN, TRONG Q


ART UNIT

PAPER NUMBER

2818

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/655,810	Applicant(s) CHOW, DAVID GENLONG	
	Examiner TRONG PHAN	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-18 is/are allowed.
- 6) ☒ Claim(s) 2-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osaka et al., 6,034,878, in view of Yeager et al., 5,802,583.

Osaka et al., 6,034,878, discloses in Figs. 18-19 memory system comprising:
a plurality of memory modules of DRAM type 10-0 to 10-15 **being arranged such that a control signal including clock and address/command lines start from the controller and output from one memory module is electrically sequentially wired to the input of another module through connectors C (see lines 26-29, column 5)**
memory controller 100;
address latch and data latch (see lines 35-44, column 19).

What is not shown in over Osaka et al., 6,034,878, is the ferroelectric memory devices as recited in claims 1-9 and 11-15.

Yeager et al., 5,802,583, discloses in Fig. 1 a ferroelectric memory device FRAM, which can be used to replace a conventional DRAM (see lines 6-17, column 3), comprising:
FRAM array 12 which may comprise other ferroelectric dielectric (see lines 15-17, column 3) such as ferroelectric polymer as well known in the art.

row decoder 14 and column decoder 16;
address latches 22 and 24;
data input/output I/O latch 36.

It would have been obvious under 35 USC 103(a) to one of ordinary skilled in the art at the time of the invention was made to utilize the FRAM device in Fig. 1 of Yeager et al., 5,802,583, for the DRAM modules 10-0 to 0-15 in Figs. 18-19 of Osaka et al., 6,034,878, for the purpose of partial write protection (see lines 6-44, column 2 of Yeager et al., 5,802,583).

Allowable Subject Matter

3. Claims 8-18 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The ferroelectric memory device having a busy signal as recited in claims 8-18 has not been found in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments filed on 6/4/04 have been fully considered but they are not persuasive.

Figs. 18-19 of Osaka et al., 6,034,878, do clearly show the control signal of one

Art Unit: 2818

memory module is electrically sequentially connected to another as clearly set forth in the above rejection.

Yeager et al., 5,802,583, does teach the use of other ferroelectric dielectric such as polymer as well known in the art for the FRAM which can be used to replace a conventional DRAM as clearly set forth in the above rejection.

Accordingly, the rejection of claims 1-7 under 35 USC 103(a) as being unpatentable over Osaka et al., 6,034,878, in view of Yeager et al., 5,802,583 as clearly set forth above is total proper and is made FINAL.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRONG PHAN whose telephone number is (571) 272-1794. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TRONG PHAN
PRIMARY EXAMINER